

Instituto Tecnológico de Cancún



Materia:

Fundamentos de Telecomunicaciones

Tarea:

Laboratorio 5

Set Key WireShark Preferences(IMPORTANT LAB)

Alumno: Aguilar Moreno Jorge Axel

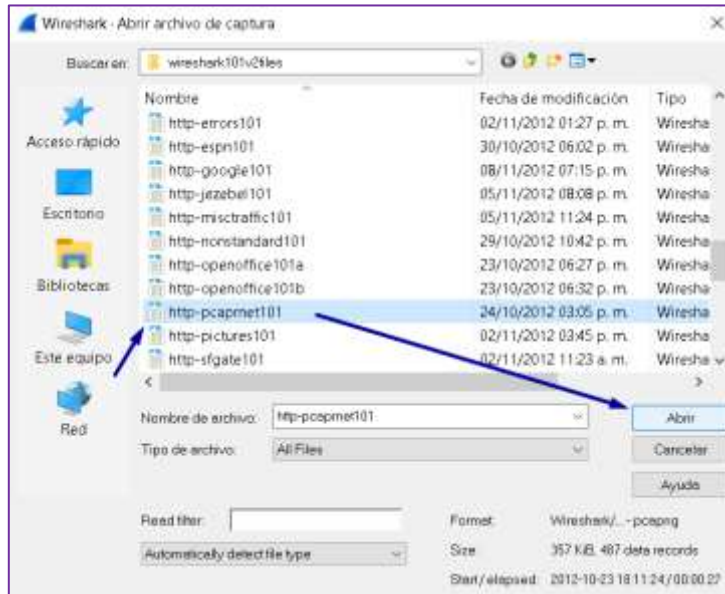
Docente: Ismael Jiménez Sánchez

Horario: 17:00 – 18:00

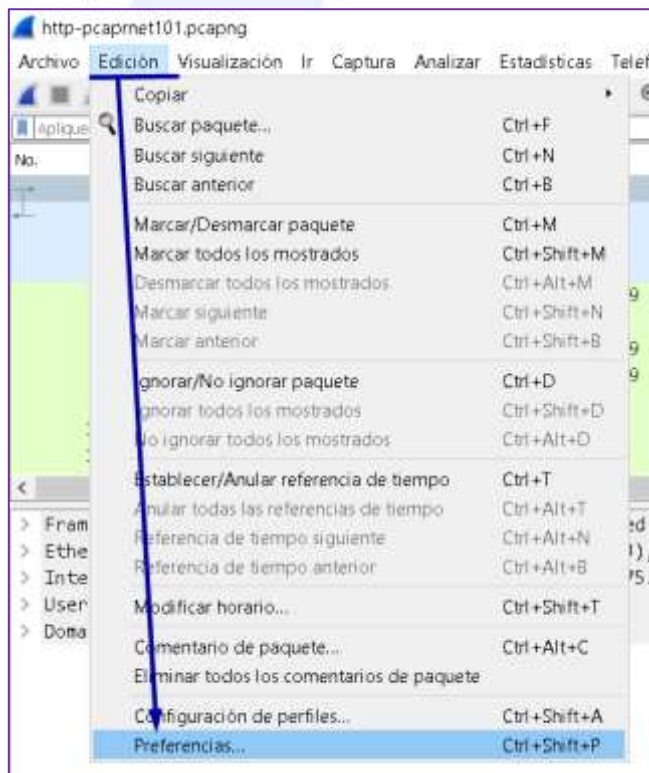
Ing. Sistemas Computacionales

5.-Semestre

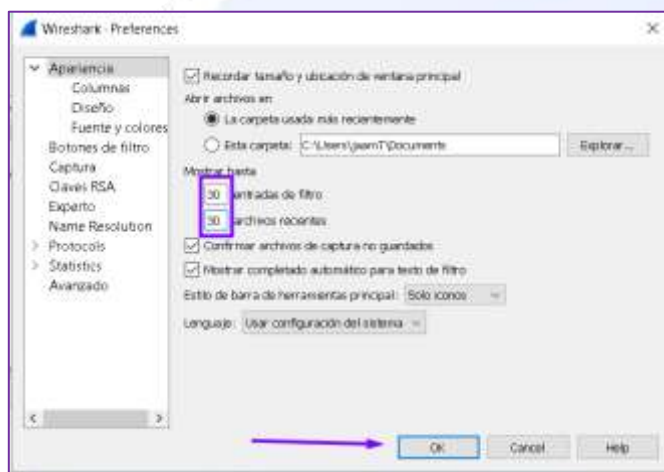
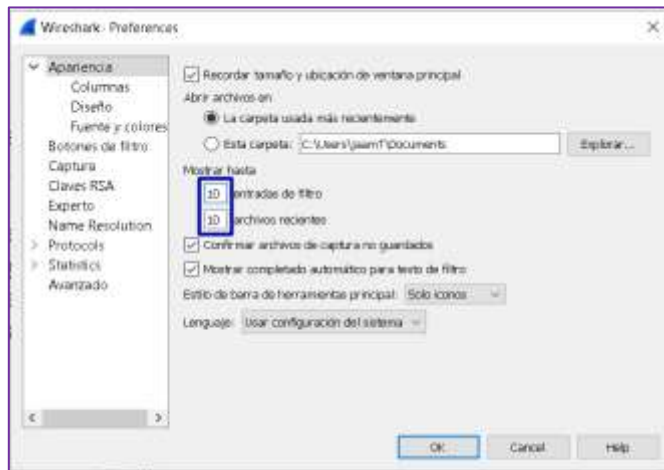
Paso 1:



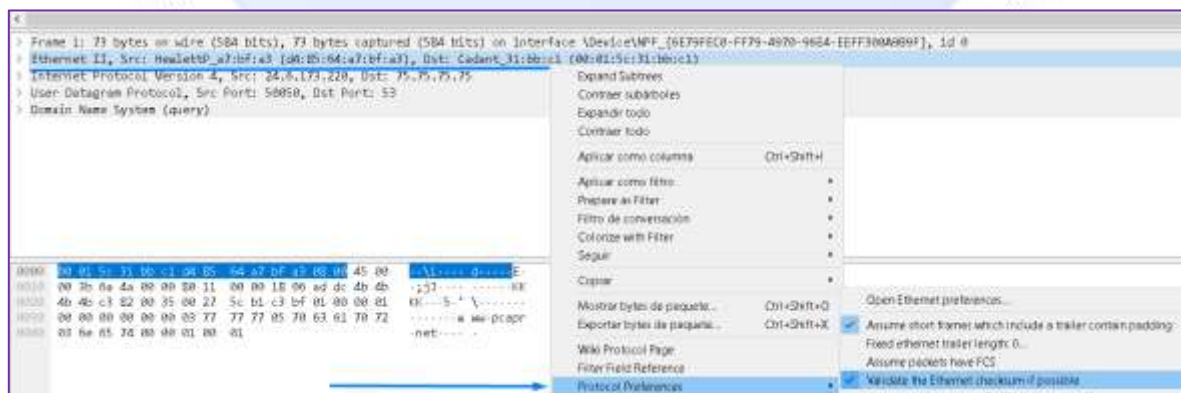
Paso 2:

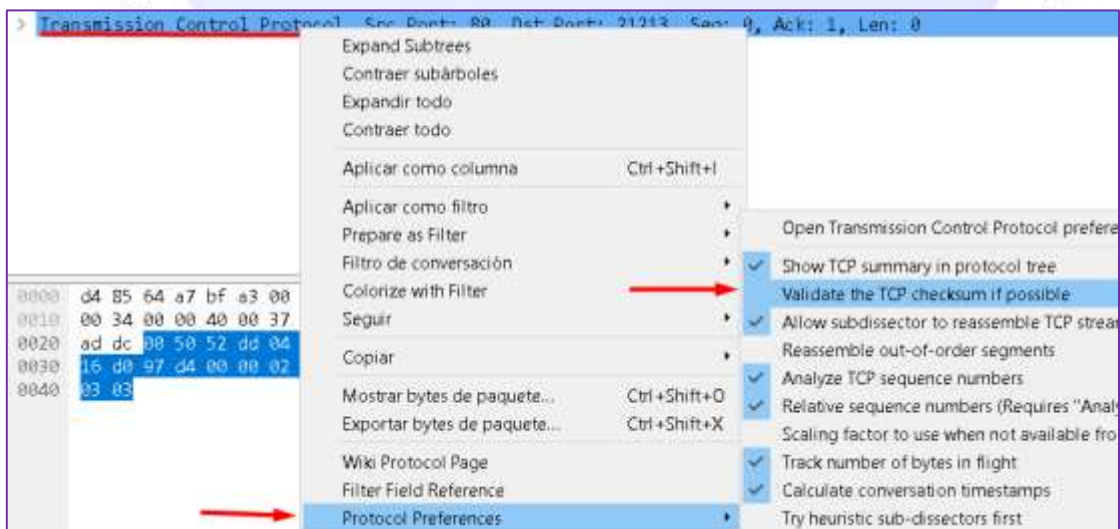
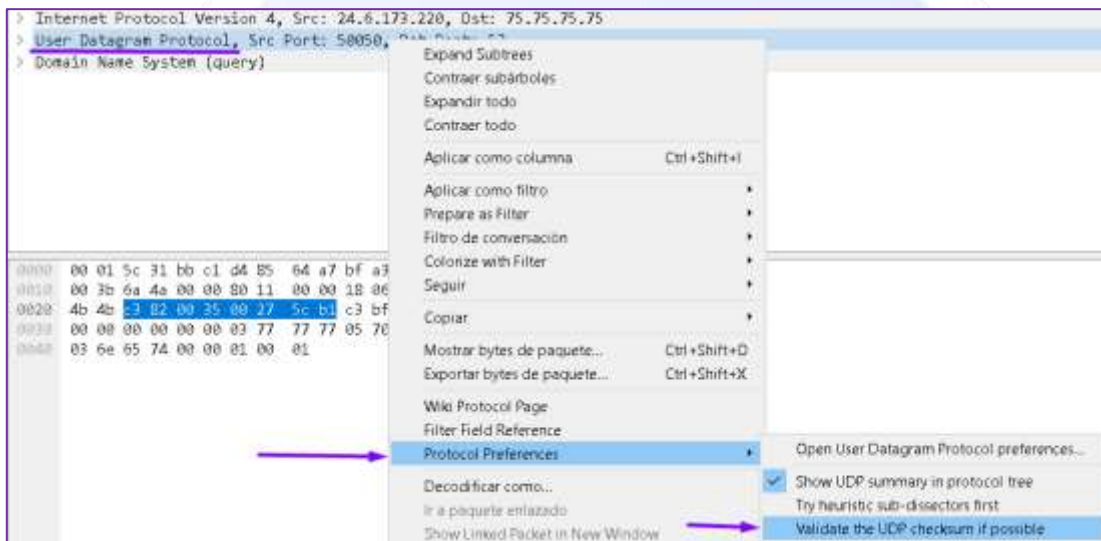
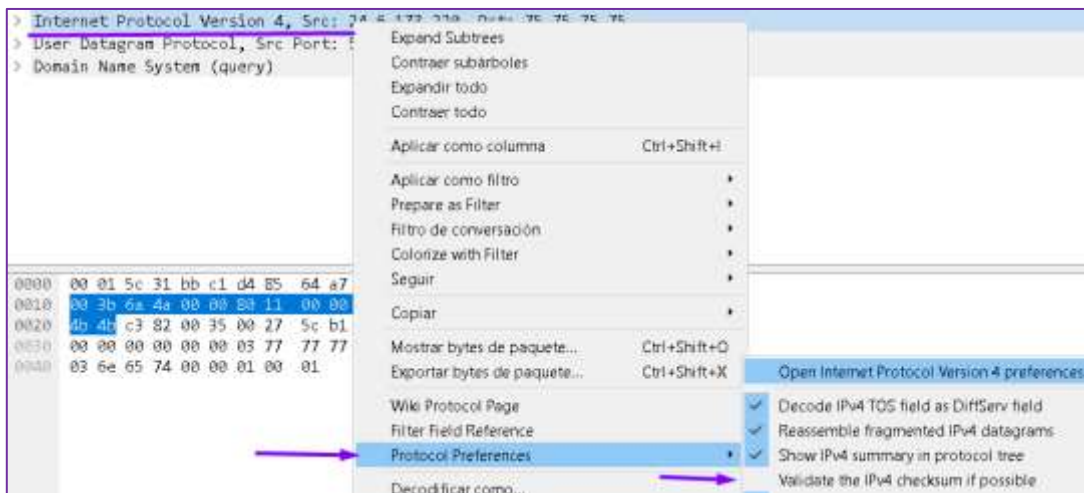


Paso 3:



Paso 4:





Paso 5:

Ethernet II, Src: HewlettP_a7:bf:a3 (d4:85:64:a7:bf:a3), Dst: Cadent_31:bb:c1 (08:01:5c:31:bb:c1)

Internet Protocol Version 4, Src: 24.6.173.220, Dst: 75.75.75.75

User Datagram Protocol, Src Port: 50050, Dst Port: 53

Domain Name System (query)

Expand Subtrees
 Contrair subárboles
 Expandir todo
 Contrair todo
 Aplicar como columna
 Ctrl+Shift+I
 Aplicar como filtro
 Preparar as Filter
 Filtro de conversación
 Colorize with Filter
 Seguir
 Copiar
 Mostrar bytes de paquete...
 Ctrl+Shift+O
 Exportar bytes de paquete...
 Ctrl+Shift+X
 Wiki Protocol Page
 Filter Field Reference
 Protocol Preferences
 Open Ethernet preferences...
 Assume short frames which include a trailer
 Fixed ethernet trailer length: 0...
 Assume packets have FCS
 Validate the Ethernet checksum if possible

00 01 5c 31 bb c1 04 85 64 a7 bf a3 00 45 00 00 3b 6a 4a 00 00 00 11 00 00 10 0b ad d0 db 4b 4b c3 82 00 35 00 27 5c b1 c3 bf 01 00 00 01 00 00 00 00 00 03 77 77 77 85 70 63 61 70 72 03 6a 65 74 00 00 01 00 01

Paso 6:

1 0.000000 24.6.173.220 75.75.75.75 DNS 73 Standard query 0xc3bf A www.pcpr.net

2 0.021485 75.75.75.75 24.6.173.220 DNS 89 Standard query response 0xc3bf A www.pcpr.net A 209.133.32.68

3 0.023115 24.6.173.220 75.75.75.75 DNS 73 Standard query 0x006e AAAA www.pcpr.net

4 0.048477 75.75.75.75 24.6.173.220 DNS 146 Standard query response 0x006e AAAA www.pcpr.net SOA pdns1.ultradns.net

Frame 1: 73 bytes on wire (584 bits), 73 bytes captured (584 bits) on interface \Device\NPF_{6E79FEC8-FF79-4970-86E4-EEFF308A9B9F}, id 0

Ethernet II, Src: HewlettP_a7:bf:a3 (d4:85:64:a7:bf:a3), Dst: Cadent_31:bb:c1 (08:01:5c:31:bb:c1)

Internet Protocol Version 4, Src: 24.6.173.220, Dst: 75.75.75.75

User Datagram Protocol, Src Port: 50050, Dst Port: 53

Domain Name System (query)

Expand Subtrees
 Contrair subárboles
 Expandir todo
 Contrair todo
 Aplicar como columna
 Ctrl+Shift+I
 Aplicar como filtro
 Preparar as Filter
 Filtro de conversación
 Colorize with Filter
 Seguir
 Copiar
 Mostrar bytes de paquete...
 Ctrl+Shift+O
 Exportar bytes de paquete...
 Ctrl+Shift+X
 Wiki Protocol Page
 Filter Field Reference
 Protocol Preferences
 Open Internet Protocol Version 4 preferences
 Decode IPv4 TOS field as DiffServ field
 Reassemble fragmented IPv4 datagrams
 Show IPv4 summary in protocol tree
 Validate the IPv4 checksum if possible

0000 00 01 5c 31 bb c1 04 85 64 a7 bf a3 00 45 00 00 3b 6a 4a 00 00 00 11 00 00 10 0b ad d0 db 4b 4b c3 82 00 35 00 27 5c b1 c3 bf 01 00 00 01 00 00 00 00 00 03 77 77 77 85 70 63 61 70 72 03 6a 65 74 00 00 01 00 01

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	24.6.173.220	75.75.75.75	DNS	73	Standard query 0xc3bf A www.pcpr.net
2	0.021485	75.75.75.75	24.6.173.220	DNS	89	Standard query response 0xc3bf A www.pcpr.net A 209.133.32.68
3	0.023115	24.6.173.220	75.75.75.75	DNS	73	Standard query 0x006e AAAA www.pcpr.net
4	0.048477	75.75.75.75	24.6.173.220	DNS	146	Standard query response 0x006e AAAA www.pcpr.net SOA pdns1.ultradns.net

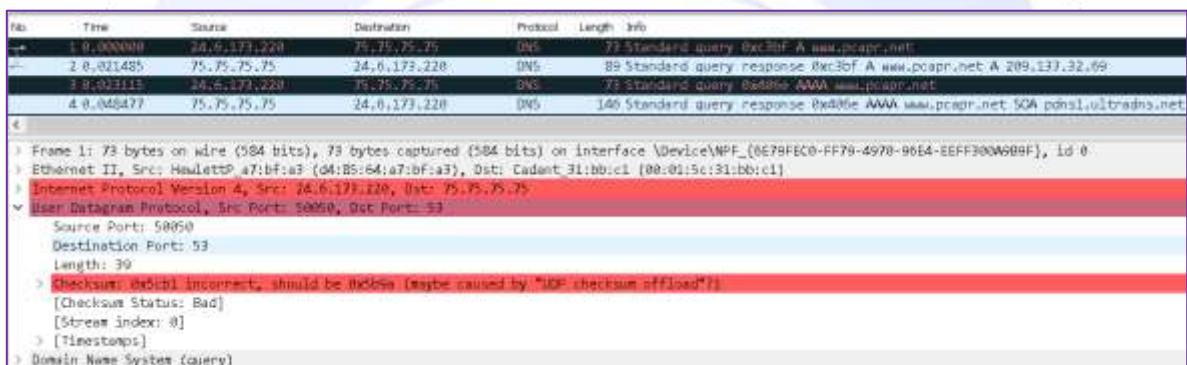
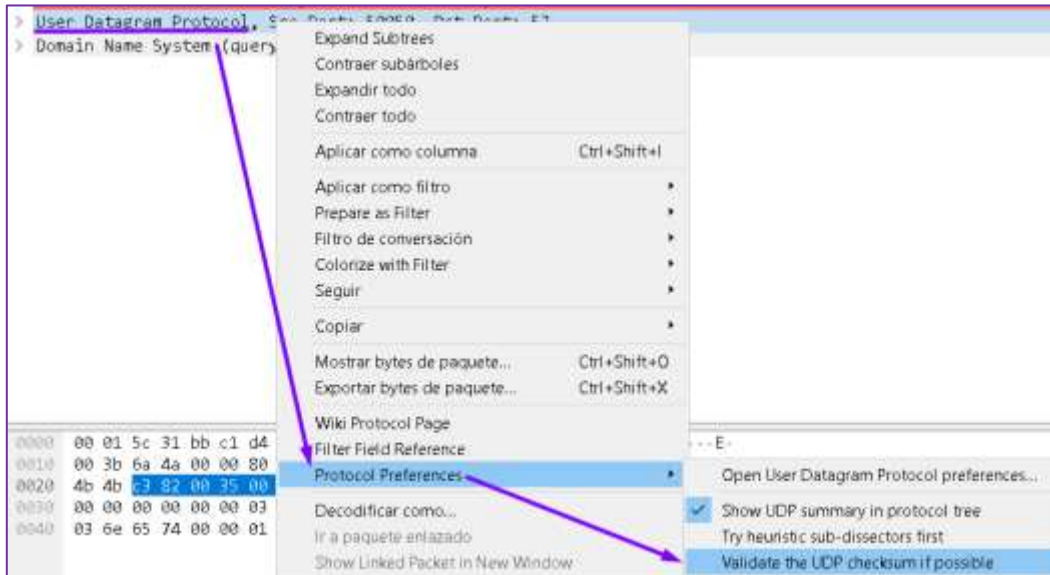
Frame 1: 73 bytes on wire (584 bits), 73 bytes captured (584 bits) on interface \Device\NPF_{6E79FEC8-FF79-4970-86E4-EEFF308A9B9F}, id 0

Ethernet II, Src: HewlettP_a7:bf:a3 (d4:85:64:a7:bf:a3), Dst: Cadent_31:bb:c1 (08:01:5c:31:bb:c1)

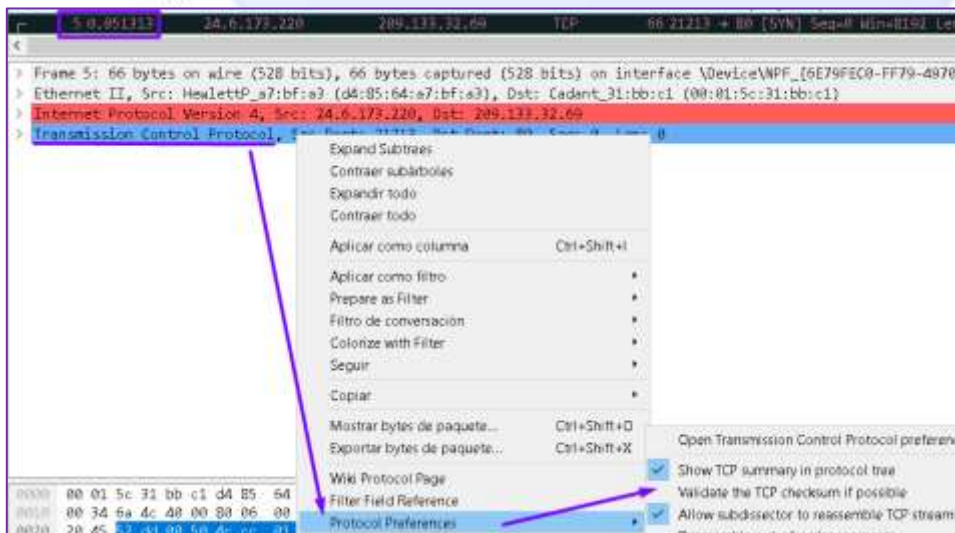
Internet Protocol Version 4, Src: 24.6.173.220, Dst: 75.75.75.75

0180 = Version: 4
 0101 = Header length: 20 bytes (5)
 Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
 Total Length: 59
 Identification: 0x54da (27210)
 Flags: 0x0000
 Fragment offset: 0
 Time to live: 128
 Protocol: UDP (17)
 Header checksum: 0x0000 incorrect, should be 0x73ef (may be caused by "IP checksum offload")
 [Header checksum status: Bad]
 [Calculated Checksum: 0x73ef]
 Source: 24.6.173.220
 Destination: 75.75.75.75

Paso 7:



Paso 8:



5	0.051313	24.6.173.220	209.133.32.69	TCP	66	21213 → 80	[SYN]
6	0.070396	209.133.32.69	24.6.173.220	TCP	66	80 → 21213	[ACK]

> Frame 5: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF_{6E79FEC0-FF79-4970-96E4-EEFF300A989F}, 1

> Ethernet II, Src: HewlettP_a7:bf:a3 (d4:85:64:a7:bf:a3), Dst: Cadant_31:bb:c1 (00:01:5c:31:bb:c1)

> Internet Protocol Version 4, Src: 24.6.173.220, Dst: 209.133.32.69

✓ Transmission Control Protocol, Src Port: 21213, Dst Port: 80, Seq: 0, Len: 0

Source Port: 21213
Destination Port: 80
[Stream index: 0]
[TCP Segment Len: 0]
Sequence number: 0 (relative sequence number)
Sequence number (raw): 1288438179
[Next sequence number: 1 (relative sequence number)]
Acknowledgment number: 0
Acknowledgment number (raw): 0
1000 = Header Length: 32 bytes (8)
Flags: 0x002 (SYN)
Window size value: 8192
[Calculated window size: 8192]
Checksum: 0xb7d3 incorrect, should be 0xf5cc(maybe caused by "TCP checksum offload"?)

Paso 9:

The screenshot shows the Wireshark interface with packet 5 selected. The packet details pane shows the Transmission Control Protocol (TCP) section. A context menu is open over the TCP section, and the 'Protocol Preferences' option is selected. The 'Protocol Preferences' dialog box is displayed, showing the 'Transmission Control Protocol' preferences. The 'Show TCP summary in protocol tree' and 'Validate the TCP checksum if possible' options are checked. The 'Allow subdissector to reassemble TCP streams' option is also checked. The 'Reassemble out-of-order segments' option is checked. The 'Analyze TCP sequence numbers' option is checked. The 'Relative sequence numbers (Requires "Analyze TCP sequence numbers")' option is checked. The 'Scaling factor to use when not available from capture' option is set to 1. The 'Track number of bytes in flight' option is checked. The 'Calculate conversation timestamps' option is checked.

Paso 10:

```
8 0.071372 24.6.173.220 209.133.32.69 HTTP 341 GET / HTTP/1.1
Sequence number (raw): 1288438180
[Next sequence number: 288 (relative sequence number)]
Acknowledgment number: 1 (relative ack number)
Acknowledgment number (raw): 82469421
0101 .... = Header Length: 20 bytes (5)
> Flags: 0x018 (PSH, ACK)
Window size value: 16425
[Calculated window size: 65700]
[Window size scaling factor: 4]
> Checksum: 0xb8e6 incorrect, should be 0xd63d(maybe caused by "TCP checksum offload"?).
[Checksum Status: Bad]
[Calculated Checksum: 0xd63d]
Urgent pointer: 0
v [SEQ/ACK analysis]
  [RTT: 0.019281000 seconds]
  [Bytes in flight: 287]
  [Bytes sent since last PSH flag: 287]
v [Timestamps]
  [Time since first frame in this TCP stream: 0.020059000 seconds]
  [Time since previous frame in this TCP stream: 0.000778000 seconds]
```